



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-1038; Directorate Identifier 2011-NM-166-AD; Amendment 39-17537; AD 2013-15-21]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding airworthiness directive (AD) 2004-13-06 for certain Airbus Model A319 and A320 series airplanes. AD 2004-13-06 required repetitive detailed inspections to detect cracks in the keel beam side panels, and repair if necessary. This new AD requires repetitive eddy current inspections for cracking in the keel beam side panels, and corrective actions if necessary. This AD was prompted by reports of cracks on the side panels of the keel beams. We are issuing this AD to detect and correct fatigue cracks on the side panels of the keel beams, which could result in reduced structural integrity of the airplane.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at

<http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1405; fax (425) 227-1149.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. The NPRM was published in the Federal Register on October 4, 2012 (77 FR 60655), and proposed to supersede AD 2004-13-06, Amendment 39-13688 (69 FR 38818, June 29, 2004). The NPRM proposed to correct an unsafe condition for the specified products. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2011-0134, dated July 15, 2011 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

During certification structural fatigue tests, several cases of structural damage (cracks) have been found on keel beam

side panels. Cracks were observed on both sides of the keel beam around the rivets below the center wing box between frame (FR) 40 and FR 42, and in part of the area of the upper elliptical cut out forward of FR 41.

This type of damage, if not detected and repaired, would adversely affect the structural integrity of the aeroplane.

To address this unsafe condition, DGAC [Direction Générale de l'Aviation Civile] France issued AD 2003-146 [which corresponds to FAA AD 2004-13-06, Amendment 39-13688 (69 FR 38818, June 29, 2004)] to require repetitive detailed inspections of those two areas and corrective actions, depending on findings.

Prompted by reported access difficulties and to allow extension of the interval between two consecutive inspections, Airbus validated an Eddy current Non-Destructive Test (NDT) inspection to replace the detailed inspection.

For the reasons described above, this [EASA] AD, which supersedes DGAC France AD 2003-146, requires repetitive Eddy-current NDT inspections for cracks in the affected areas of the keel beam side panel below the center wing box and corrective actions [repair], depending on findings.

You may obtain further information by examining the MCAI in the AD docket.

### **Revised Service Information**

The NPRM (77 FR 60655, October 4, 2012) referred to Airbus Mandatory Service Bulletin A320-53-1060, Revision 02, dated November 30, 2010, as the appropriate source of service information for the proposed actions. Airbus has revised this service information. We have reviewed Airbus Mandatory Service Bulletin A320-53-1060, Revision 04, dated September 13, 2012, which includes an updated effectivity, an added illustration, amended job set-up and close-up procedures, and minor changes, but adds no accomplishment instruction procedures.

## **Comments**

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

## **Request to Revise Referenced Service Information**

Jetblue Airways requested that we revise the NPRM (77 FR 60655, October 4, 2012) to reference the latest service information.

We agree. As explained above, we reviewed Airbus Mandatory Service Bulletin A320-53-1060, Revision 04, dated September 13, 2012. We have revised this final rule to refer to Airbus Mandatory Service Bulletin A320-53-1060, Revision 04, dated September 13, 2012; to add new paragraph (i) to allow credit for actions accomplished before the effective date of this AD using Airbus Mandatory Service Bulletin A320-53-1060, Revision 02, dated November 30, 2010, or Revision 03, dated January 20, 2012; and to re-identify subsequent paragraphs.

## **Requests to Correct Subparagraph References**

Delta Airlines (Delta) and Airbus requested that we fix typographical errors in paragraphs (g) and (j) of the NPRM (77 FR 60655, October 4, 2012), which refer to incorrect paragraphs.

We agree that those paragraphs were misidentified in the NPRM (77 FR 60655, October 4, 2012). We have changed paragraph (g) in this final rule to refer to paragraphs (g)(1) and (g)(2) of this final rule, instead of paragraphs (k)(1) and (k)(2) of this final rule. We have also changed paragraph (k) of this final rule (identified as paragraph (j) in the NPRM), to refer to paragraphs (k)(1), (k)(2), and (k)(3) of this final rule.

### **Request for Clarification of Inspection Interval**

Delta requested that we clarify whether the eddy current inspection specified in the NPRM (77 FR 60655, October 4, 2012) will allow extension of the inspection intervals that are required by AD 2004-13-06. Delta stated it agrees that an eddy current inspection will be a more effective way to detect cracks than a detailed visual inspection, but disagrees that it will solve the access difficulty problem.

We agree to clarify these issues. EASA and Airbus later acknowledged that the general visual inspection was replaced with non-destructive testing (eddy current inspection) because the eddy current inspection procedure is a more effective way to detect cracking, not because the inspection area was difficult to access as stated in the MCAI. There is no change in the initial inspection compliance time for the eddy current inspection as compared to the initial inspection compliance time for the general visual inspection; however, the repetitive inspection interval for the eddy current inspection (12,000 flight cycles or 26,700 flight hours) is at a greater interval as compared to the repetitive inspection interval for the general visual inspection (4,300 flight cycles or 9,600 flight hours). We have not changed this final rule in this regard.

### **Request to Allow Flight with Cracks**

The NPRM (77 FR 60655, October 4, 2012) requires crack repair before further flight. Delta requested that operators be allowed to comply with the crack repair compliance times described in Airbus Mandatory Service Bulletin A320-53-1060 (as referenced in EASA AD 2011-0134, dated July 15, 2011), or decrease the compliance times for crack repair in inspection Area A, instead of eliminating the repair deferral time

specified in the NPRM. Delta stated that this would ease accomplishment of repetitive inspections for operators.

We are aware that Airbus Mandatory Service Bulletin A320-53-1060 allows deferral of crack repair in certain areas based on crack length. We usually do not allow dispatch with known cracks in primary structure. As specified in the NPRM (77 FR 60655, October 4, 2012) under “Differences Between This AD and the MCAI or Service Information,” we find that, to achieve an adequate level of safety for the affected fleet, fatigue cracks on the side panels of the keel beams must be repaired prior to further flight. However, if an operator has an inspection plan for tracking crack length and mitigating the risks associated with flight with cracks, then we will consider its request for approval of an alternative method of compliance in accordance with the provisions specified in paragraph (j) of this final rule. We have not changed this final rule in this regard.

#### **Request to Approve Airbus Repair Approval Sheet (RAS)**

Airbus requested that we consider each Airbus RAS approved under Airbus Design Organization Approval (DOA) EASA.21J.031, provided after cracking is reported, as an approved method for repair, as required by paragraph (h)(2) of the NPRM (77 FR 60655, October 4, 2012).

We agree to clarify. Airbus has design organization approval authority from EASA and, therefore, a RAS approved under DOA EASA.21J.031 would be a method of compliance for a repair required by this AD under the provisions specified in paragraph (j)(2) of this AD. We have not changed this AD in this regard.

## **Request to Update Airbus Contact Information**

Airbus requested that we replace the acronym EAS with the acronym EIAS in its contact information.

We agree to change the Airbus contact information in this AD.

## **Conclusion**

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously – and minor editorial changes. We have determined that these changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 60655, October 4, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 60655, October 4, 2012).

## **Costs of Compliance**

We estimate that this AD will affect about 351 products of U.S. registry.

We estimate that it will take about 29 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$865,215, or \$2,465 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD. We have no way of determining the number of products that may need these actions.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and



4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the MCAI, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2004-13-06, Amendment 39-13688 (69 FR 38818, June 29, 2004), and adding the

following new AD:

**2013-15-21 Airbus:** Amendment 39-17537. Docket No. FAA-2012-1038; Directorate Identifier 2011-NM-166-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD supersedes AD 2004-13-06, Amendment 39-13688 (69 FR 38818, June 29, 2004).

**(c) Applicability**

This AD applies to Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; and Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; certificated in any category; all manufacturer serial numbers, except those having embodied Airbus modification 30355 in production.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Reason**

This AD was prompted by reports of cracks on the side panels of the keel beams. We are issuing this AD to detect and correct fatigue cracks on the side panels of the keel beams, which could result in reduced structural integrity of the airplane.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**(g) Repetitive Eddy Current Inspection**

At the applicable compliance time in paragraph (g)(1) or (g)(2) of this AD: Do an eddy current non-destructive test (NDT) inspection to detect cracks in the keel beam side panels at Area A and Area B, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A320-53-1060, Revision 04, dated September 13, 2012. Repeat the inspection thereafter at intervals not to exceed 12,000 flight cycles or 26,700 flight hours, whichever occurs first. Area A is part of the area of the upper elliptical cut-out stringer (STGR) 42 on the left-hand (LH) and right-hand (RH) side forward of frame (FR) 41; Area B is the area around the fasteners on both sides of the keel beam side panel below the center wing box at STGR 42 on the LH and RH side between FR 40 and FR 42.

(1) For airplanes that have been inspected as specified in Airworthiness Limitations Item (ALI) Task 533142-01-1, which was specified in the Airbus A319/A320/A321 ALI document up to Revision 05 inclusive; or as specified in Airbus A319/A320/A321 Maintenance Review Board (MRB) Report up to Revision 08 inclusive; or as specified in the instructions of Airbus Service Bulletin A320-53-1060, dated June 19, 2002, or Revision 01, dated April 2, 2004: At the later of the times specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD.

(i) Within 4,300 flight cycles or 9,600 flight hours after the last inspection, whichever occurs first.

(ii) Within 30 days after the effective date of this AD.

(2) For airplanes other than those identified in paragraph (g)(1) of this AD: At the later of the times specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD.

(i) Prior to the accumulation of 24,200 total flight cycles, or 48,400 total flight hours, whichever occurs first.

(ii) Within 30 days after the effective date of this AD.

**(h) Corrective Action for Cracking**

(1) If any crack is found in Area A during any inspection required by paragraph (g) of this AD: Before further flight, repair the affected area, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A320-53-1060, Revision 04, dated September 13, 2012. Accomplishing a repair terminates the repetitive inspections of Area A required by paragraph (g) of this AD for that side of the keel beam.

(2) If any crack is found in Area B during any inspection required by this AD: Before further flight, repair the affected area in accordance with a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent).

**(i) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Airbus Mandatory Service Bulletin A320-53-1060, Revision 02, dated November 30, 2010; or Revision 03, dated January 20, 2012; which are not incorporated by reference in this AD.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1405; fax (425) 227-1149. Information may be emailed to: [9-ANM-116-AMOC-REQUESTS@faa.gov](mailto:9-ANM-116-AMOC-REQUESTS@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(k) Special Flight Permits**

Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the

airplane to a location where the airplane can be repaired (if the operator elects to do so), provided the conditions in paragraphs (k)(1), (k)(2), and (k)(3) of this AD are met.

Areas A and B are defined in Airbus Mandatory Service Bulletin A320-53-1060, Revision 04, dated September 13, 2012.

(1) No multiple cracks in Area A.

(2) If there is a single crack in Area A, the length must be less than 20.0 millimeters (0.79 inch).

(3) No cracking in Area B.

**(l) Related Information**

(1) Refer to MCAI EASA Airworthiness Directive 2011-0134, dated July 15, 2011, for related information, which can be found in the AD docket on the internet at <http://www.regulations.gov>.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the address specified in paragraphs (m)(3) and (m)(4) of this AD.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Mandatory Service Bulletin A320-53-1060, Revision 04, dated September 13, 2012.

(ii) Reserved.

(3) For service information identified in this AD, Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on July 26, 2013.

Stephen P. Boyd,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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